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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,788	11/16/2001	Patrice Brissette	38898-0014	7725

7590 02/28/2006

Mr. David J. Greer
c/o Ridout & Maybee LLP
Suite 2400
One Queen Street East
Toronto, ON M5C 3B1
CANADA

EXAMINER	
WANG, LIANG CHE A	
ART UNIT	**PAPER NUMBER**
2155	

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/987,788	BRISSETTE, PATRICE	
	Examiner	Art Unit	
	Liang-che Alex Wang	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-16 are presented for examination.

The New Grounds of Rejection

2. Applicant's amendment and argument with respect to claims 1-16, filed on 1/30/2006 have been fully considered but they are deemed to be moot in views of the new grounds of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-3, 6-8, 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hessler et al., US Patent Number 6,798,748, hereinafter Hessler, in views of Agilent Technologies, "An Overview of ITU-T G.709", hereinafter Agilent.

5. Referring to claim 1, Hessler teaches a method for processing tandem connection monitoring information in a synchronous hierarchic network system (abstract lines 1-6, Col 1 lines 11-16), comprising:

   a. receiving at a network element a frame (Col 2 lines 25-30, Col 1 lines 45-53, frames are transmitted from source network element A to sink network element F) containing tandem connection monitoring information (Col 2 lines 65-67, and Col

4 lines 25-32, FAS is associated with TC-TII which is part of TCM, thus frame alignment signal is viewed as tandem connection monitoring information associated with a tandem connection trail) associated with a tandem connection trail having trail termination at the network element (Abstract lines 1-6, Col 5 lines 20-22, Col 1 lines 11-16, 32-37);

b. extracting from the frame the associated tandem connection monitoring information (Col 2 lines 65-67, FAS contained in N1/N2 bytes of the frame) for each of the plurality of tandem connection trails (Col 2 line 64- Col 3 line 9, data must be extracted from the information frame in order for the system to process the data) having trail termination (Col 1 lines 11-16, tandem trails contain trail terminations) at the network element prior to processing the tandem connection monitoring information (monitoring data must be extracted prior then processing it) for any of the tandem connection trails having trail terminations at the network element. (Col 2 line 64- Col 3 line 9).

Hessler does not teach a frame contains a plurality of tandem connection trails.

Agilent teaches an OTU frame according to ITU-T G.709 standard, contains six TCM fields (see figure 4, TCM1 –TCM6).

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the OTU frame of Agilent in Hessler such that Hessler would have an OTU frame which containing tandem connection monitoring information associated with six TCMs (each TCM contains a trail with a trail

termination.), because Hessler teaches an invention for monitoring a tandem network and Agilent provides a standard which would enhance the frame structure of Hessler's.

A person with ordinary skill in the art would have been motivated to make the modification to Hessler because having OTU frame according to ITU-T G.709 would provide a route to the next-generation optical network and also improving performance and reducing cost as taught by Agilent (page 2.)

6. Referring to claim 2, Hessler as modified further teaches processing the extracted tandem connection monitoring information associated with the tandem connection trails in parallel (Col 2 line 64 – Col 3 line 2).
7. Referring to claim 3, Hessler as modified further teaches wherein the tandem connection monitoring information associated with each of the tandem connection trails includes trail trace identification information (Col 4 lines 25-33).
8. Referring to claim 6, Hessler as modified further teaches wherein the tandem connection monitoring information associated with each of the tandem connections trails includes status buts carrying information indicating upstream conditions (Col 4 lines 33-43).
9. Referring to claim 7, Hessler as modified further teaches wherein the number of tandem connection monitoring terminations at the network element is from two to six (Col 1 lines 31-38, and Col 2 lines 33-37).
10. Referring to claim 8 Hessler as modified further teaches, wherein the frame includes a plurality of sub-fields each dedicated to carrying tandem connection monitoring information associated with a predetermined tandem connection monitoring trail (Col 1 lines 45-53, figures 7 and 8).

11. Referring to claims 9-12, claims 9-12 encompass the same scope of the invention as that of the claims 1-3, 6, 8. Therefore, claims 9-12 are rejected for the same reason as the claims 1-3, 6, 8.

12. Referring to claims 13-16, claims 13-16 encompass the similar scope of the invention as that of the claims 1-3, 6, 8. Hessler as modified further teaches the step of processing at the network element the first tandem connection monitoring information in parallel with the second tandem connection information (Col 2 lines 33-3, the protection mechanism is based on the result of motoring functions for each of the two sub-network connections). Therefore, claims 13-16 are rejected as anticipated by Hessler.

13. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hessler in views of Agilent, and in further views of Vissers, US Patent Number 6,104,702, hereinafter Vissers.

Hessler as modified teaches an invention as described in claims 1 and 3, and has taught wherein the trace information is broken up for transmission over a number of successive frames (see figure 2, multiple VC frames).

Hessler as modified does not explicitly teach source access point identifier information identifying a source of the tandem connection monitoring information.

However, Vissers teaches the VC overhead block would contains so called "path trace bytes" which are used to transport an access point identifier which is unique in the network and identifies the source of the path (Col 1 lines 39-42.)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the path trace bytes and access point identifier of

Vissers in Hessler such that to have Hessler includes a source access point identifier information identifying a source of the tandem connection monitoring information, because both Hessler and Vissers has taught inventions related to VC frames in data transmission between nodes.

A person with ordinary skill in the art would have been motivated to make the modification to Hessler because having the access point identifier would enhanced Hessler's system by identifying the source of the path as taught by Vissers (Col 1 lines 39-42.)

14. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hessler in views of Agilent, and in further views of Abbas et al., US Patent Number 6,577,594, hereinafter Abbas.

Hessler as modified teaches an invention as described in claim 1, Hessler as modified does not explicitly teach the tandem connection trails includes a Bit-Interleaved Parity-8 (BIP-8) code computed a the source of each of the tandem connection trails based on payload information in a previously sent frame.

However, Abbas teaches the use of BIP-8 code to be computed at the source based on the previously sent frame (Col 4 lines 6-29).

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the BIP-8 code of Abbas in Hessler such that to have Hessler includes a BIP-8 code computed a the source of each of the tandem connection trails based on payload information in a previously send frame, because both

Hessler and Abbas has taught inventions related to tandem connections monitoring with VC frames in data transmission between nodes.

A person with ordinary skill in the art would have been motivated to make the modification to Hessler because having BIP-8 code is one of the standards used in the tandem frames as taught by Abbas (Col 4 lines 6-29.)

Conclusion

15. Chronos Technology Ltd, discloses the ITU-T G.709 standard is published in February 2001.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liang-che Alex Wang whose telephone number is (571)272-3992. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.

17. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571)272-4006. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

18. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Liang-che Alex Wang
February 22, 2006

SALEH NAJJAR
SUPERVISORY PATENT EXAMINER